

THE ASTROPHYSICAL JOURNAL
CONTENTS OF VOLUME 322, PART 1

1987 NOVEMBER 1, Number 1

	<i>Page</i>	<i>Fiche</i>	
COSMIC STRING WAKES	<i>Albert Stebbins, Shoba Veeraraghavan, Robert Brandenberger, Joseph Silk, and Neil Turok</i>	1	138-A7
THE ORIGIN OF THE DIFFUSE X-RAY BACKGROUND AND THE FORMATION OF GALAXIES AND VOIDS	<i>Ruth A. Daly</i>	20	138-B12
THE SELF-SIMILAR COSMOLOGICAL PARADIGM: A NEW TEST AND TWO NEW PREDICTIONS	<i>Robert L. Oldershaw</i>	34	138-C12
COSMOLOGICAL PARAMETERS FROM THE <i>IRAS</i> GALAXY SAMPLE	<i>Jens Verner Villumsen and Michael A. Strauss</i>	37	138-D1
COMPARISONS OF THE SPATIAL DISTRIBUTION OF ABELL CLUSTERS AGAINST MODELS WITH GAUSSIAN INITIAL CONDITIONS	<i>David J. Batuski, Adrian L. Melott, and Jack O. Burns</i>	48	138-D12
THE VERTICAL STRUCTURE OF GALACTIC DISKS	<i>R. G. Carlberg</i>	59	138-E9
MOLECULES IN GALAXIES. V. CO OBSERVATIONS OF FLOCULENT AND GRAND DESIGN SPIRALS	<i>Antony A. Stark, Bruce G. Elmegreen, and Don Chance</i>	64	138-F1
VLBI STRUCTURE OF 3C 84 AT 89 GHz	<i>D. C. Backer, M. C. H. Wright, R. L. Plumbeck, J. E. Carlstrom, C. R. Masson, A. T. Moffet, A. C. S. Readhead, D. Woody, A. E. E. Rogers, J. M. Moran, C. R. Predmore, and R. L. Dickman</i>	74	138-F11
X-RAY OBSERVATIONS OF THE SUPERNOVA REMNANT N103B IN THE LARGE MAGELLANIC CLOUD	<i>K. P. Singh, N. J. Westergaard, H. W. Schnopper, and D. J. Helfand</i>	80	138-G3
ARECIBO OBSERVATIONS OF <i>IRAS</i> GALAXIES AT 21 CENTIMETERS AND 18 CENTIMETERS	<i>Robert W. Garwood, George Helou, and John M. Dickey</i>	88	138-G11
LARGE-SCALE GALACTIC DUST MORPHOLOGY AND PHYSICAL CONDITIONS FROM <i>IRAS</i> OBSERVATIONS	<i>T. J. Sodroski, E. Dwek, M. G. Hauser, and F. J. Kerr</i>	101	139-A10
GLOBULAR CLUSTER EVOLUTION IN THE GALAXY: A GLOBAL VIEW	<i>David F. Chernoff and Stuart L. Shapiro</i>	113	139-B9
THE EVOLUTION AND FINAL DISINTEGRATION OF SPHERICAL STELLAR SYSTEMS IN A STEADY GALACTIC TIDAL FIELD	<i>Hyung Mok Lee and Jeremiah P. Ostriker</i>	123	139-C6
FOURIER COEFFICIENTS OF THE RR LYRAE VARIABLES IN NGC 6171	<i>R. F. Stellingwerf and R. J. Dickens</i>	133	139-D2
ABSORPTION IN THE WIDE QSO PAIR TOLOLO 1037-2704 AND TOLOLO 1038-2712: EVIDENCE FOR A SPECIALLY ALIGNED SUPERCLUSTER AT $z = 2$	<i>Wallace L. W. Sargent and Charles C. Steidel</i>	142	139-D11
EMISSION-LINE VARIABILITY AND THE BROAD-LINE REGION OF QUASI-STELLAR OBJECTS. I. TIME SCALES AND PHOTON DENSITIES	<i>Wei Zheng, E. Margaret Burbidge, Harding E. Smith, Ross D. Cohen, and Steven E. Bradley</i>	164	139-F5
NEW CONSIDERATIONS ON THE BROAD-LINE REGIONS OF QUASARS	<i>J. H. You and F. H. Cheng</i>	174	139-G2
THE EFFECT OF A QUASI-STELLAR OBJECT ON ITS HOST GALAXY: DYNAMICAL AND PHYSICAL PROCESSES IN THE INTERSTELLAR MEDIUM AROUND A QUASI-STELLAR OBJECT	<i>C. A. Chang, A. V. R. Schiano, and A. M. Wolfe</i>	180	139-G8
CONVECTION IN SUPERNOVA THEORY	<i>H. A. Bethe, G. E. Brown, and J. Cooperstein</i>	201	140-B3
EVOLUTION OF 8-10 M_{\odot} STARS TOWARD ELECTRON CAPTURE SUPERNOVAE. II. COLLAPSE OF AN O + Ne + Mg CORE	<i>Ken'ichi Nomoto</i>	206	140-B8
PROSPECTS FOR GAMMA-RAY LINE OBSERVATIONS OF INDIVIDUAL SUPERNOVAE	<i>Neil Gehrels, Marvin Leventhal, and Crawford J. MacCallum</i>	215	140-C3
WAVE ENERGY IN WHITE DWARF ATMOSPHERES. I. MAGNETOHYDRODYNAMIC ENERGY SPECTRA FOR HOMOGENEOUS DB AND LAYERED DA STARS	<i>Zdzislaw E. Musielak</i>	234	140-D8

CONTENTS

	<i>Page</i>	<i>Fiche</i>	
THE SCATTERING OF ALFVÉN WAVES BY DENSITY FLUCTUATIONS	He-Sheng Li and Ellen G. Zweibel	248	140-E8
PARTICLE ACCELERATION AT SHOCKS: A MONTE CARLO METHOD	J. G. Kirk and P. Schneider	256	140-F2
H ₂ O LINE EMISSION FROM SHOCKED GAS	David A. Neufeld and Gary J. Melnick	266	140-F12
RADIO RECOMBINATION LINES FROM FAST SHOCKS IN MOLECULAR CLOUDS, WITH APPLICATION TO BIPOLAR FLOWS	Christopher F. McKee and David J. Hollenbach	275	140-G7
A POSSIBLE SEMISECULAR VARIATION IN ORBITAL PERIOD OF BINARY PULSTAR SYSTEM PSR 1913+16 AND LORENTZ INVARIANCE OF GRAVITY	K. Nordtvedt, Jr.	288	141-A6
AXION BREMSSTRAHLUNG IN DENSE STARS	Masayuki Nakagawa, Yasuharu Kohyama, and Naoki Itoh	291	141-A9
AN UPPER LIMIT TO THE SPACE DENSITY OF SHORT-PERIOD, NONINTERACTING BINARY WHITE DWARFS Edward L. Robinson and Allen W. Shafter		296	141-B1
SELECTIVE MASS LOSS, ABUNDANCE ANOMALIES, AND HELIUM-RICH STARS G. Michaud, J. Dupuis, G. Fontaine, and T. Montmerle		302	141-B7
DETERMINATION OF PHOTOSPHERIC HELIUM ABUNDANCES FOR THE HOT WHITE DWARFS LB 1663 AND CD -38°10980 FROM EXOSAT SOFT X-RAY PHOTOMETRY	F. B. S. Puerels, J. Heise, S. M. Kahn, and R. D. Rogers	315	141-C6
X-RAY IRRADIATED ACCRETION DISKS AND BIMODAL STATES	H. Inoue and R. Hoshi	320	141-C11
THE HIGH-ENERGY X-RAY SPECTRUM OF BLACK HOLE CANDIDATE GX 339-4 DURING A TRANSITION J. F. Dolan, C. J. Crannell, B. R. Dennis, and L. E. Orwig		324	141-D1
THE SPECTRA OF ACCRETION DISKS AND THEIR APPLICATION TO LOW-MASS X-RAY BINARIES Ronald E. Taam and P. Mészáros		329	141-D6
SEARCH FOR X-RAY EMISSION FROM THE RADIO LOBES OF SCORPIUS X-1	Barry Geldzahler and Paul Hertz	342	141-E5
DIFFUSE EINSTEIN X-RAY EMISSION FROM THE REGION OF RCW 49, A BRIGHT SOUTHERN EMISSION NEBULA	A. Goldwurm, P. A. Caraveo, and G. F. Bignami	349	141-E12
A FLARE EVENT ON THE LONG-PERIOD RS CANUM VENATICORUM SYSTEM IM PEGASI Derek L. Buzasi, Lawrence W. Ramsey, and David P. Huenemoerder		353	141-F8
AN ANALYSIS OF THE PHOTOSPHERIC LINE PROFILES IN F, G, AND K SUPERGIANTS	David F. Gray and C. G. Toner	360	141-G1
SINGLE GAUSSIAN CURVE OF GROWTH ABUNDANCE DETERMINATIONS FROM ULTRAVIOLET INTERSTELLAR ABSORPTION-LINE DATA	A. W. Harris	368	141-G9
CARBON GRAINS IN THE ENVELOPE OF IRC +10216	P. G. Martin and C. Rogers	374	142-A1
HIGH SPECTRAL RESOLUTION INFRARED OBSERVATIONS OF V1057 CYGNI	L. Hartmann and S. J. Kenyon	393	142-B6
PREDICTED [Ni II] INFRARED LINE STRENGTHS IN THE CRAB NEBULA AND IC 443	Richard B. C. Henry	399	142-B12
NEAR-INFRARED H ₂ EMISSION FROM HERBIG-HARO OBJECTS. I. A SURVEY OF LOW-EXCITATION OBJECTS Richard D. Schwartz, Martin Cohen, and Peredur M. Williams		403	142-C2
FLUORESCENT EXCITATION OF INTERSTELLAR H ₂	John H. Black and Ewine F. van Dishoeck	412	142-C11
RADIO OBSERVATIONS OF CARBON MONOXIDE TOWARD ZETA OPHIUCHI: VELOCITY STRUCTURE, ISOTOPIC ABUNDANCES, AND PHYSICAL PROPERTIES	William D. Langer, Alfred E. Glassgold, and Robert W. Wilson	450	142-G9
EVOLUTION OF THE AXIAL ELECTRON CYCLOTRON MASER INSTABILITY, WITH APPLICATIONS TO SOLAR MICROWAVE SPIKES	Loukas Vlahos and Phillip Sprangle	463	143-A10
STOKES PROFILE ANALYSIS AND VECTOR MAGNETIC FIELDS. I. INVERSION OF PHOTOSPHERIC LINES A. Skumanich and B. W. Lites		473	143-B8
THE POLARIZATION PROPERTIES OF MODEL SUNSPOTS: THE BROAD-BAND POLARIZATION SIGNATURE OF THE SCHLÜTER-TEMESVÁRY REPRESENTATION	A. Skumanich and B. W. Lites	483	143-C4
HEATING OF CORONAL LOOPS BY PHASE-MIXED SHEAR ALFVÉN WAVES	Toufik E. Abdelatif	494	143-D1
ENERGY BUILDUP IN CORONAL MAGNETIC FLUX TUBES	R. S. Steinolfson and T. Tajima	503	143-D10
PROPERTIES OF SOLAR CORONAL ACTIVE REGIONS DEDUCED FROM X-RAY LINE SPECTRA	D. L. McKenzie	512	143-E5
SIMULATIONS OF THE Ca xix SPECTRAL EMISSION FROM A FLARING SOLAR CORONAL LOOP. I. THERMAL CASE	E. Antonucci, M. A. Dodero, G. Peres, S. Serio, and R. Rosner	522	143-F1

CONTENTS

v

	Page	Fiche
GROUND-BASED CONSTRAINTS ON THE H ₂ O*/CO* ABUNDANCE RATIO AND DUST IMPACT RATE IN COMET P/GIACOBINI-ZINNER: COMPARISON WITH THE ICE SPACECRAFT RESULTS <i>R. Mark Wagner, Barry L. Lutz, and S. Wyckoff</i>	544	143-G9
OBSERVATION OF THE OH 1667 MHz LINE TOWARD COMET HALLEY FROM THE SOUTHERN HEMISPHERE <i>E. Bajaja, R. Morras, W. G. L. Pöppel, J. C. Cersosimo, M. C. Martín, J. Mazzaro, J. C. Olalde, A. Silva, M. E. Arnal, F. R. Colomb, I. F. Mirabel, and V. Boriakoff</i>	549	144-A1
CLOUD CHEMISTRY ON JUPITER <i>Barbara E. Carlson, Michael J. Prather, and William B. Rossow</i>	559	144-A11
ABSOLUTE OSCILLATOR STRENGTHS FOR 108 LINES OF Si I BETWEEN 163 AND 410 NANOMETERS <i>Peter L. Smith, M. C. E. Huber, G. P. Tozzi, H. E. Griesinger, B. L. Cardon, and G. G. Lombardi</i>	573	144-B12
ERRATUM		
NEUTRINO-PAIR BREMSSTRAHLUNG IN DENSE STARS. IV. PHONON CONTRIBUTIONS IN THE CRYSTALLINE LATTICE PHASE <i>Naoki Itoh, Yasuharu Kohyama, Noriyoshi Matsumoto, and Midori Seki</i>	584	144-C9
INSTRUCTIONS TO AUTHORS	i	144-C10

1987 NOVEMBER 15, Number 2

THE APPEARANCE OF PRIMEVAL GALAXIES	<i>E. Baron and Simon D. M. White</i>	585	146-C1
REIONIZATION AND SMALL-SCALE FLUCTUATIONS IN THE MICROWAVE BACKGROUND	<i>Ethan T. Vishniac</i>	597	146-C13
PROPERTIES OF DENSE GALAXY GROUPS AND THE IMPLICATIONS OF THEIR EXISTENCE	<i>Jack W. Sulentic</i>	605	146-D7
AXISYMMETRIC SHELL MODELS WITH STÄCKEL POTENTIALS	<i>Jeffrey L. Bishop</i>	618	146-E7
A CENTRAL BLACK HOLE IN M32	<i>John L. Tonry</i>	632	146-F7
SYNCHROTRON EMISSION FROM SHOCK WAVES IN ACTIVE GALACTIC NUCLEI..... <i>P. L. Biermann and P. A. Strittmatter</i>	643	146-G5	
INVERSE COMPTON SCATTERING OF AMBIENT RADIATION BY A COLD RELATIVISTIC JET: A SOURCE OF BEAMED, POLARIZED CONTINUUM IN BLAZARS?	<i>Mitchell C. Begelman and Marek Sikora</i>	650	146-G12
X-RAY AND OPTICAL OBSERVATIONS OF X-RAY-SELECTED BL LACERTAE OBJECTS <i>P. Giommi, P. Barr, B. Garilli, I. M. Gioia, T. Maccacaro, D. Maccagni, and R. E. Schild</i>	662	147-A10	
A RADIO SEARCH FOR CRAB-LIKE NEBULAE IN M33..... <i>Stephen P. Reynolds and John D. Fix</i>	673	147-B7	
THE CO CONTENTS OF DWARF IRREGULAR GALAXIES	<i>Linda J. Tacconi and Judith S. Young</i>	681	147-C1
OH MEGAMASERS IN HIGH-LUMINOSITY IRAS GALAXIES..... <i>I. F. Mirabel and D. B. Sanders</i>	688	147-C8	
ON STABLE HYDROSTATIC EQUILIBRIUM CONFIGURATIONS OF THE GALAXY AND IMPLICATIONS FOR ITS HALO <i>J. B. G. M. Bloemen</i>	694	147-D1	
A COMPOSITE CO SURVEY OF THE ENTIRE MILKY WAY <i>T. M. Dame, H. Ungerechts, R. S. Cohen, E. J. de Geus, I. A. Grenier, J. May, D. C. Murphy, L.-Å. Nyman, and P. Thaddeus</i>	706	147-D13	
THE LINEAR FILAMENTS OF THE RADIO ARC NEAR THE GALACTIC CENTER	<i>Farhad Yusef-Zadeh and Mark Morris</i>	721	147-F7
PG 1411+442: THE NEAREST BROAD ABSORPTION LINE QUASAR <i>Matthew A. Malkan, Richard F. Green, and John B. Hutchings</i>	729	147-G6	
AN ABSORPTION-LINE SURVEY OF 32 QSOs AT RED WAVELENGTHS: PROPERTIES OF THE Mg II ABSORBERS <i>Kenneth M. Lanzetta, David A. Turnshek, and Arthur M. Wolfe</i>	739	148-A2	
PROPERTIES OF EVOLVED MASS-LOSING STARS IN THE MILKY WAY AND VARIATIONS IN THE INTERSTELLAR DUST COMPOSITION	<i>Harley A. Thronson, Jr., William B. Latter, John H. Black, John Bally, and Perry Hacking</i>	770	148-C5
THE CRUCIAL ROLE OF COOLING IN THE MAKING OF MOLECULAR CLOUDS AND STARS <i>Joel E. Tohline, Peter H. Bodenheimer, and Dimitris M. Christodoulou</i>	787	148-D9	
RESONANT NEUTRINO OSCILLATIONS AND STELLAR COLLAPSE <i>G. M. Fuller, R. W. Mayle, J. R. Wilson, and D. N. Schramm</i>	795	148-E3	
PARTIAL REDISTRIBUTION IN HIGH-DENSITY, HIGHLY IONIZED PLASMAS <i>B. Talin, R. Stamm, V. P. Kafandjian, and Lewis Klein</i>	804	148-E12	
THE INFRARED DIAGNOSTIC OF A DUSTY PLASMA WITH APPLICATIONS TO SUPERNOVA REMNANTS	<i>Eli Dwek</i>	812	148-F6
A PULSAR EMISSION MODEL: OBSERVATIONAL TESTS	<i>F. Curtis Michel</i>	822	148-G2

CONTENTS

	Page	Fiche	
THE EFFECT OF DECAY OF THE AMPLITUDE OF OSCILLATION ON RANDOM PROCESS MODELS FOR QPO X-RAY STARS	N. Shibasaki, R. F. Elsner, and M. C. Weisskopf	831	149-A1
CONSTRAINTS ON MODELS OF CYGNUS X-3 FROM HIGH-ENERGY GAMMA-RAY ABSORPTION AT SOURCE R. J. Protheroe and Todor Stanev	838	149-A8	
THE EVOLUTIONARY STATUS OF 4U 1820-30	S. Rappaport, L. A. Nelson, C. P. Ma, and P. C. Joss	842	149-A12
GRAVITATIONAL REDSHIFT AND MASS-RADIUS RELATION IN WHITE DWARFS	D. Koester	852	149-B8
ON SYNCHRONIZATION IN EARLY-TYPE BINARIES	Jean-Louis Tassoul	856	149-B12
NONLINEAR MAGNETOHYDRODYNAMIC WAVES IN A STEADY ZONAL CIRCULATION FOR A SHALLOW FLUID SHELL ON THE SURFACE OF A ROTATING SPHERE	Y. Q. Lou	862	149-C4
POLARIZATION VARIABILITY AMONG WOLF-RAYET STARS. I. LINEAR POLARIZATION OF A COMPLETE SAMPLE OF SOUTHERN GALACTIC WC STARS Nicole St-Louis, Laurent Drissen, Anthony F. J. Moffat, Pierre Bastien, and Santiago Tapia	870	149-C13	
POLARIZATION VARIABILITY AMONG WOLF-RAYET STARS. II. LINEAR POLARIZATION OF A COMPLETE SAMPLE OF SOUTHERN GALACTIC WN STARS..... Laurent Drissen, Nicole St-Louis, Anthony F. J. Moffat, and Pierre Bastien	888	149-E5	
THE DISCOVERY OF NONTHERMAL RADIO EMISSION FROM MAGNETIC Bp-Ap STARS Stephen A. Drake, David C. Abbott, T. S. Bastian, J. H. Bieging, E. Churchwell, G. Dulk, and Jeffrey L. Linsky	902	149-F10	
VLA AND LOW-FREQUENCY VLBI OBSERVATIONS OF THE RADIO SOURCE 0503+467: AUSTERE CONSTRAINTS ON INTERSTELLAR SCATTERING IN TWO MEDIA	Steven R. Spangler, Alan L. Fey, and James M. Cordes	909	149-G3
EINSTEIN IPC IMAGING AND SPECTRAL OBSERVATIONS OF THE SUPERNOVA REMNANT HB 9	D. A. Leahy	917	150-A1
THE IONIZATION STRUCTURE OF PLANETARY NEBULAE. VII. NEW OBSERVATIONS OF THE RING NEBULA Timothy Barker	922	150-A6	
THE "ALTERNATIVE X" QUESTION: WHAT CAUSES THE STRONG MOLECULAR BANDS AND DAMPING LINES IN VERY STRONG LINED (SUPER-METAL-RICH) STARS?	Benjamin J. Taylor and Scott B. Johnson	930	150-B2
ULTRAVIOLET INTERSTELLAR EXTINCTION TOWARD NGC 6530 AND THE INTRINSIC ENERGY DISTRIBUTION OF 9 SAGITTARII AND HD 165052	Ana V. Torres	949	150-C7
THE INTERSTELLAR CLOUDS TOWARD 3C 154 AND 3C 353 S. R. Federman, Neal J. Evans II, R. F. Willson, E. Falgarone, F. Combes, and B. M. Scheufele	960	150-D4	
SPECTRAL FLUX FROM LOW-DENSITY PHOTOSPHERES: LOW-TEMPERATURE RESULTS Stephen Hershkowitz and Robert V. Wagoner	967	150-D11	
EFFECT OF BALMER CONTINUUM ABSORPTION ON LINE EMISSION FROM Be STARS Krishna M. V. Apparao and S. P. Tarafdar	976	150-E7	
COSMIC-RAY ELEMENTAL ABUNDANCES FROM 1 TO 10 GeV PER AMU FOR BORON THROUGH NICKEL Robert Dwyer and Peter Meyer	981	150-E12	
OH AND CH CONTINUOUS OPACITY IN SOLAR AND STELLAR ATMOSPHERES Robert L. Kurucz, Ewine F. van Dishoeck, and S. P. Tarafdar	992	150-F13	
IMPULSIVE H α DIAGNOSTICS OF ELECTRON-BEAM-HEATED SOLAR FLARE MODEL CHROMOSPHERES Richard C. Canfield and Kenneth G. Gayley	999	150-G10	
THE DIRECTIVITY OF HIGH-ENERGY EMISSION FROM SOLAR FLARES: SOLAR MAXIMUM MISSION OBSERVATIONS	W. Thomas Vestrand, D. J. Forrest, E. L. Chupp, E. Rieger, and G. H. Share	1010	151-A7
X-RAY OBSERVATIONS OF SOLAR FLARES WITH THE EINSTEIN OBSERVATORY J. H. M. M. Schmitt, F. R. Harnden, Jr., and H. Fink	1023	151-B6	
SIMULTANEOUS SMM FLAT CRYSTAL SPECTROMETER AND VERY LARGE ARRAY OBSERVATIONS OF SOLAR ACTIVE REGIONS	Kenneth R. Lang, Robert F. Willson, Kermitt L. Smith, and Keith T. Strong	1035	151-C4
SOLAR ACTIVE REGION PHYSICAL PARAMETERS INFERRED FROM A THERMAL CYCLOTRON LINE AND SOFT X-RAY SPECTRAL LINES	Kenneth R. Lang, Robert F. Willson, Kermitt L. Smith, and Keith T. Strong	1044	151-D3
A MULTISPACECRAFT STUDY OF THE INJECTION AND TRANSPORT OF SOLAR ENERGETIC PARTICLES J. Beek, G. M. Mason, D. C. Hamilton, G. Wibberenz, H. Kunow, D. Hovestadt, and B. Klecker	1052	151-D14	
ANNOUNCEMENT: AVAILABILITY OF A CURRENT INDEX TO THE ASTROPHYSICAL JOURNAL AND THE ASTRONOMICAL JOURNAL	1073	151-F11	

CONTENTS

vii

ERRATA

	Page	Fiche
CHEMICAL ENRICHMENT OF HALO PROTOCLUSTERS WITH DIFFERING STELLAR MASS FUNCTIONS <i>Graeme H. Smith and Robert D. McClure</i>	1074	151-F12
THE M31 GLOBULAR CLUSTER SYSTEM <i>D. Crampton, A. P. Cowley, D. Schade, and P. Chayer</i>	1074	151-F12
ABSTRACTS OF THE ASTROPHYSICAL JOURNAL SUPPLEMENT SERIES, 1987 DECEMBER ISSUE		
A 1.49 GHz ATLAS OF SPIRAL GALAXIES WITH $B_T \leq +12$ AND $\delta \geq -45^\circ$ <i>J. J. Condon</i>	1075	151-G1
A 1.49 GHz SUPPLEMENTARY ATLAS OF SPIRAL GALAXIES WITH H -MAGNITUDES <i>J. J. Condon, Q. F. Yin, and David Burstein</i>	1075	151-G1
SYSTEMATIC PROPERTIES OF CO EMISSION FROM GALAXIES. I. LUMINOSITY FUNCTION <i>Frances Verter</i>	1075	151-G1
THE EARLY A TYPE STARS: REFINED MK CLASSIFICATION, CONFRONTATION WITH STRÖMGREN PHOTOMETRY, AND THE EFFECTS OF ROTATION <i>R. O. Gray and R. F. Garrison</i>	1076	151-G2
A CATALOG OF SPECTROSCOPICALLY IDENTIFIED WHITE DWARFS <i>George P. McCook and Edward M. Sion</i>	1076	151-G2
RECURRENT EPISODIC MASS LOSS IN A B2c STAR: 66 OPHIUCHI, 1982-1985 <i>C. A. Grady, George Sonneborn, Chi-Chao Wu, and H. F. Henrichs</i>	1077	151-G3
THE ULTRAVIOLET SPECTRUM OF BETA LYRAE <i>Paolo A. Mazzali</i>	1077	151-G3
THE NEAR-INFRARED SPECTRUM OF THE FeH MOLECULE <i>John G. Phillips, Sumner P. Davis, Bo Lindgren, and Walter J. Balfour</i>	1077	151-G3
INDEX TO VOLUME 322, PARTS 1 AND 2		<i>See Part 2</i>